Scientific method review

1. What is the goal of science?
2. Distinguish between a hypothesis and a theory.
3. What is the difference between the everyday term “theory” and the term “scientific theory”?
4. Outline the difference between inductive and deductive reasoning.
5. In taking measurements, what is the difference between accuracy and precision?
6. Why is it a good idea to reduce the chances of errors happening in an experiment?
7. Outline the steps of the scientific method.
8. Distinguish between the different variables of the control and experimental groups in an experiment.
9. To ensure that their results are not due to chance, scientists will usually carry out an experiment a number of times, a process called replication. A scientist has two types of plants and she wants to test which plant produces the most oxygen under sunny conditions outdoors. Devise a practical experimental approach, incorporating replication of the experiment.